

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office on November 8, 2002.

  
Glenn P. Ladwig, Patent Attorney

SUPPLEMENTAL PRELIMINARY  
AMENDMENT

Examining Group 1645

Patent Application

Docket No. GJE-65

Serial No. 09/830,807

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner : Jana A. Hines  
Art Unit : 1645  
Applicants : Helen Rachel Crooke, Enda Elizabeth Clarke, Paul Howard Everest, Gordon Dougan, David William Holden, Jacqueline Elizabeth Shea, Robert Graham Feldman  
Serial No. : 09/830,807  
Filed : April 30, 2001  
Conf. No. : 2112  
For : Virulence Genes and Proteins, and Their Use

Assistant Commissioner for Patents  
Washington, D.C. 20231

SUPPLEMENTAL PRELIMINARY AMENDMENT

Sir:

Applicants respectfully request that the above-identified patent application be amended as follows:

In the Claims

Please substitute the following claims:

Claim 1 (twice amended):

AA!  
1. An isolated peptide encoded by an operon, wherein said operon comprises a gene selected from the group consisting of *tatA*, *tatB*, *tatC*, *tatD*, *tatE*, *mdoG*, *creC*, *recG*, *yggN*, *eck1*, *iroD*, *iroC*, *iroE*, *mtd2*, and *msl* to *msl6*, obtainable from *E. coli* K1, or a homologue thereof in a Gram-negative bacterium, wherein said homologue has at least 30% homology at the amino acid or nucleotide level, or a functional fragment thereof.

Claim 3 (twice amended):

AA2, 3. An isolated polynucleotide which comprises a gene selected from the group consisting of *tatA*, *tatB*, *tatC*, *tatD*, *tatE*, *mdoG*, *creC*, *recG*, *yggN*, *eck1*, *iroD*, *iroC*, *iroE*, *mtd2*, and *msl* to *msl6*, obtainable from *E. coli* K1, or a homologue thereof in a Gram-negative bacterium, wherein said homologue has at least 30% homology at the amino acid or nucleotide level, or a functional fragment thereof.

Claim 4 (twice amended):

4. A host transformed to express a peptide encoded by an operon, wherein said operon comprises a gene selected from the group consisting of *tatA*, *tatB*, *tatC*, *tatD*, *tatE*, *mdoG*, *creC*, *recG*, *yggN*, *eck1*, *iroD*, *iroC*, *iroE*, *mtd2*, and *msl* to *msl6*, obtainable from *E. coli* K1, or a homologue thereof in a Gram-negative bacterium, wherein said homologue has at least 30% homology at the amino acid or nucleotide level, or a functional fragment thereof.

Claim 5 (twice amended):

5. A vaccine comprising a peptide, or the means for its expression, wherein said peptide is encoded by an operon, wherein said operon comprises a gene selected from the group consisting of *tatA*, *tatB*, *tatC*, *tatD*, *tatE*, *mdoG*, *creC*, *recG*, *yggN*, *eck1*, *iroD*, *iroC*, *iroE*, *mtd2*, and *msl* to *msl6*, obtainable from *E. coli* K1, or a homologue thereof in a Gram-negative bacterium, wherein said homologue has at least 30% homology at the amino acid or nucleotide level, or a functional fragment thereof.

Claim 6 (twice amended):

6. A vaccine comprising a microorganism having a virulence gene mutation, wherein the gene is selected from the group consisting of *tatA*, *tatB*, *tatC*, *tatD*, *tatE*, *mdoG*, *creC*, *recG*, *yggN*, *eck1*, *iroD*, *iroC*, *iroE*, *mtd2*, and *msl* to *msl6*, obtainable from *E. coli* K1, or a homologue thereof in a Gram-negative bacterium, wherein said homologue has at least 30% homology at the amino acid or nucleotide level, or a functional fragment thereof.

Claim 9 (twice amended):

9. A method for screening potential drugs, or for the detection of virulence, wherein said method utilizes a peptide encoded by an operon, wherein said operon comprises a gene selected from the group consisting of *tatA*, *tatB*, *tatC*, *tatD*, *tatE*, *mdoG*, *creC*, *recG*, *yggN*, *eck1*, *iroD*, *iroC*, *iroE*, *mtl2*, and *msl* to *msl6*, obtainable from *E. coli* K1, or a homologue thereof in a Gram-negative bacterium, wherein said homologue has at least 30% homology at the amino acid or nucleotide level, or a functional fragment thereof.

Claim 10 (twice amended):

10. A method for treatment or prevention of a condition associated with infection by a Gram-negative bacterium, said method comprising administering a vaccine to a person or animal in need thereof, wherein said vaccine comprises a peptide, or a host transformed to express said peptide, wherein said peptide is encoded by an operon comprising a gene selected from the group consisting of *tatA*, *tatB*, *tatD*, *tatC*, *tatE*, *mdoG*, *creC*, *recG*, *yggN*, *eck1*, *iroD*, *iroC*, *iroE*, *mtl2*, and *msl* to *msl6*, obtainable from *E. coli* K1, or a homologue thereof in a Gram-negative bacterium, wherein said homologue has at least 30% homology at the amino acid or nucleotide level, or a functional fragment thereof.

Claim 22 (amended):

22. A method for treatment or prevention of a condition associated with infection by a Gram-negative bacterium, said method comprising administering a nucleotide to a person or animal in need thereof, wherein said nucleotide comprises an operon including a gene selected from the group consisting of *tatA*, *tatB*, *tatC*, *tatD*, *tatE*, *mdoG*, *creC*, *recG*, *yggN*, *eck1*, *iroD*, *iroC*, *iroE*, *mtl2*, and *msl* to *msl6*, obtainable from *E. coli* K1, or a homologue thereof in a Gram-negative bacterium, wherein said homologue has at least 30% homology at the amino acid or nucleotide level, or a functional fragment thereof.